

WHAT IS CLAIMED IS:

1. An individual recognizing apparatus comprising:  
a data acquisition unit to acquire certifying data from a  
5 recognized person;

a detection unit to detect feature points of the certifying data  
acquired by the data acquisition unit;

a change calculation unit to calculate the change of the  
detecting positions of the feature points detected by the detection  
10 unit;

an aptitude judging unit to judge whether the certifying data  
acquired by the data acquisition unit is appropriate for the  
preparation of a certifying dictionary based on the change in the  
feature points calculated by the change calculation unit;

15 a dictionary preparing unit to prepare a certifying dictionary  
based on the certifying data acquired by the data acquisition unit  
when the certifying data is judged appropriate;

a dictionary storing unit to store the certifying dictionary  
prepared by the dictionary preparing unit; and

20 a certifying unit to certify whether a recognized person is a  
proper person using the certifying data acquired by the data  
acquisition unit and the dictionary stored in the dictionary storing  
unit.

25 2. The individual recognizing apparatus according to claim 1,  
wherein the change calculation unit includes a unit to calculate at

least either one of the up\_down and the left\_right angle change of the feature points detected by the detection unit.

3. The individual recognizing apparatus according to claim 1,  
5 wherein the certifying data acquired by the data acquisition unit is a face image of the recognized person.

4. The individual recognizing apparatus according to claim 3,  
wherein the detection unit uses such face regions as eyes, brows,  
10 nose or lip of the face image as the feature points.

5. The individual recognizing apparatus according to claim 1,  
wherein the processes are executed again starting from the  
acquisition of certifying data by the data acquisition unit when the  
15 certifying data is judged as inappropriate by the aptitude judging unit.

6. An individual recognizing apparatus comprising:  
a data acquisition unit to acquire certifying data from a  
20 recognized person;  
a dictionary preparing unit to prepare a certifying dictionary by  
analyzing principal components based on the certifying data  
acquired by the data acquisition unit;  
a calculation unit to calculate an eigenvalue contribution rate  
25 of the dictionary prepared by the dictionary preparing unit;  
an aptitude judging unit to judge whether the dictionary

prepared by the dictionary preparing unit is appropriate as a certifying dictionary based on the eigenvalue contribution rate calculated by the change calculation unit;

5 a dictionary storing unit to store the dictionary prepared by the dictionary preparing unit when the dictionary is judged appropriate by the aptitude judging unit; and

10 a certifying unit to certify whether a recognized person is a proper person using the certifying data acquired by the data acquisition unit and the dictionary stored in the dictionary storing unit.

7. The individual recognizing apparatus according to claim 6, wherein the certifying data acquired by the data acquisition unit is a face image of the recognized person.

15 8. The individual recognizing apparatus according to claim 7, wherein the detection unit uses such facial regions as eyes, brows, nose or lip of the face image as the feature points.

20 9. The individual recognizing apparatus according to claim 6, wherein the processes are executed again starting from the acquisition of certifying data by the data acquisition unit when the certifying data is judged as inappropriate by the aptitude judging unit.

25 10. An individual recognizing method comprising:

acquiring certifying data from a recognized person;  
detecting feature points from the acquired certifying data;  
calculating the change of the detecting positions of the detected  
feature points;

5        judging whether the acquired certifying data is appropriate for  
the preparation of a certifying dictionary based on the change of the  
calculated feature points;

preparing a certifying dictionary based on the acquired  
certifying data when the certifying data is judged appropriate in the  
10    judging step;

storing the prepared certifying dictionary; and  
certifying whether a recognized person is a proper person using  
the acquired certifying data and the stored dictionary.

15        11. The individual recognizing method according to claim 10,  
wherein the step for calculating the change includes the step for  
calculating at least either one of the up\_down and the left\_right  
angle changes of the feature points detected by the detecting step.

20        12. The individual recognizing method according to claim 10,  
wherein the certifying data acquired by the data acquiring step are  
a face image of the recognized person.

13. The individual recognizing method according to claim 12,  
25    wherein the detecting step uses such facial regions as eyes, brows,  
nose or lip of a face image as the feature points.

14. The individual recognizing method according to claim 10,  
wherein the processes are executed again starting from the  
acquisition of the certifying data by the data acquiring step when  
5 the acquired data is judged as inappropriate in the aptitude judging  
step.

15. An individual recognizing method comprising:  
acquiring certifying data from a recognized person;  
10 preparing a certifying dictionary by analyzing principal  
components based on the acquired certifying data;  
calculating an eigenvalue contribution rate of the prepared  
dictionary;  
judging whether the prepared dictionary is appropriate as a  
15 certifying dictionary based on the calculated eigenvalue contribution  
rate;  
storing the prepared dictionary when the prepared dictionary is  
judged appropriate in the judging step; and  
certifying whether a recognized person is a proper person using  
20 the acquired certifying data and the stored dictionary.

16. The individual recognizing method according to claim 15,  
wherein the acquired certifying data is a facial image of a  
recognized person.

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17. The individual recognizing method according to claim 16,

wherein the detecting step uses such facial regions as eyes, brows, nose or lip of the facial image as feature points.

18. The individual certifying method according to claim 15,  
5 wherein the processes are executed again starting from the acquisition of certifying data by the data acquiring step when the acquired data is judged as inappropriate in the aptitude judging step.